



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

RBE350A93-3312-03-7
Job Sheet 170959



Part No: RBE350A93-3312-03-7

Job Qty: 6 ea

Part Name: Washer



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 1/24/18

Job Tracking No:

Due Date: 1/31/18

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG RBE350A93-3312-03 Rev F IPP Rev A 18.01.23 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	6 Ea		1/30/18	0.00	0.00	Start Up Machining-3		18-02-12
120	CNC Lathe	6 pcs		1/31/18	0.00	6.00	MORI SL-154		18
130	QC	6 pcs		1/31/18	0.00	0.00	QC2 Machining-4		18
140	QC	6 pcs		1/31/18	0.00	0.00	QC8 Machining-4		18-02-13
170	Outsource	6 pcs		1/31/18	0.00	0.00	Outsource12		18/03/05
180	Packaging	6 pcs		1/31/18	0.00	0.00	Packaging2		18/03/05
190	QC	6 pcs		1/31/18	0.00	0.00	QC6		38
200	Packaging	6 pcs		1/31/18	0.00	0.00	Packaging3-1		21
210	QC21-SA	6 Ea		1/31/18	0.00	0.00	QC21		21

Part Op 120 - 1-Machine as per DWG. FB 785 FOLIO REV: _____ DWG REV: _____ 2-Debur

Descriptions: 170 - -Issue P/O to Groupe Altech; PO 039039 -Black oxide finish, MIL-C-13964, CLASS 1; MIL-C-16173 GRADE 4 -Certificate of Conformity is required

FEB 15 2018

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
MT-4140QT-R1.500	AISI 4140 Quenched & Tempered Steel Round Bar 1.500" Dia.	.1800 ft (.03 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	MT-4140QT-R1.500	0	6	0
	5009411	188		

Part Specifications

Specifications could not be found.

DQA: _____ Date: _____



Dart Aerospace Ltd.
 1270 Aberdeen Street
 Hawkesbury, ON K64 1K7
 CANADA
 TEL.: 1 613 632-5200
 Email: sales@dartaero.com
 www.dartaerospace.com

JDATE

Work Order update only ☐



W

Da



Washer

PART NO: RBE350A93-3312-03-7
Original Serial #: S041212
Revision:
Operation: Start up Operation 02/12/18
Change No: Job No: 170959

AGAINST DEPARTMENT/PROCESS

Cross tube	☐	Water Jet	☐	Engineering	☐
Small Fab	☐	Prod. Eng. Coord.	☐	Quality	☐
Finishing	☐	Rec/Store/Packaging	☐	Other	☐
Composite	☐	Supplier	☐		

MRB (QSI042) Approval

Disposition

Completed By

Lead hand / Supervisor
Approval Verification

QC / QA Coordinator
Approval

Root Cause

Environment	☐	No Re-verification	☐
Design	☐	Operator	☐
Doc/Data	☐	Offset/Setup	☐
Equip/Tooling	☐	Supplier	☐
Handling/Pre	☐	Training	☐
Material	☐	Use for Testing	☐
Internal Transport	☐	Poor Information	☐
Tribal Knowledge	☐	Rushing	☐
LOA	☐	Product Improvement	☐
Substation	☐	Process Improvement	☐
Past Expiry Date	☐	Manufacturing Process	☐
Misidentified	☐	Past Due	☐

Pressure/Forced

Bending

Centre Not Concentric

Cracks

Crimp/Kink/Ripple/Wave

Cuffs

Crushing

Heat Treat

Wave/Twist in Tube

Marks/Chatter

OTHER :

FAULT CATEGORY

Temperature/Cure

Set-up

BOM/Route

Broken/Damage/Defect

Inspection Incomplete/Unqualified

Contamination

Countersink

Cut Too Short

Instructions Incomplete/Unclear

Drill Holes

Power Loss/Surge

Folio/Program

Grain

Weld

Wrong Stock Pulled

Out of Sequence

Off-set

Mislabeled

Fit/Function

Misaligned/off center

Positioned Wrong

Outside Dimensions

Over/Under tolerance

Part Incorrect

Part Lost/Missing

Part Moved

Drawing

Finish

Misread

Turning Sequence

INSPECTION SHEET

DAS

20
9-8C

Date:Revised by

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

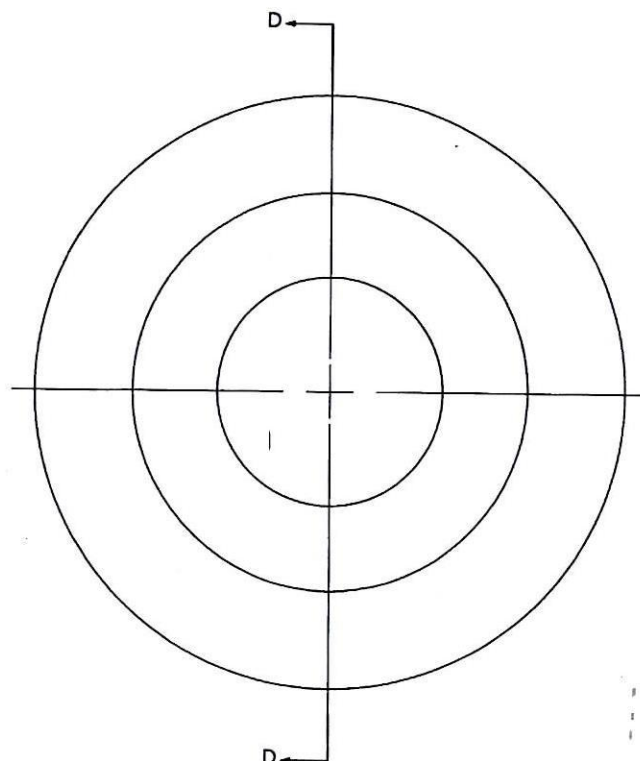


QA Closed: _____ Date: _____

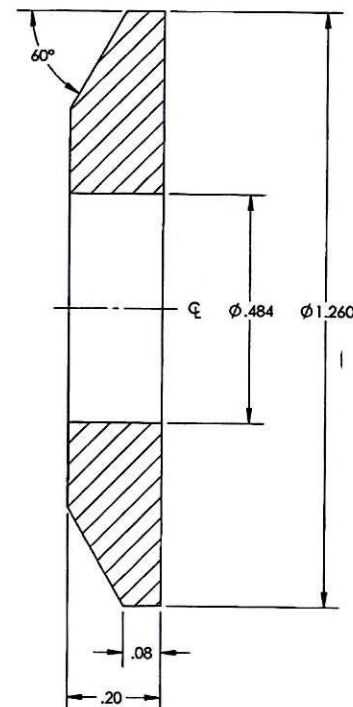
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
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Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																		
Description Work Order Deviation				Disposition				Completed By																	
Root Cause				FAULT CATEGORY																					
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐		No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐		Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐		Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐															
OTHER : ☐																									

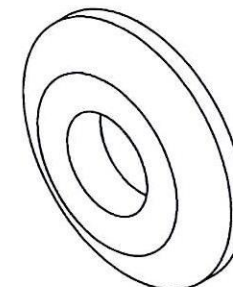
REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
F	DIMENSION .473 CHANGED TO .484, DIMENSION .079 CHANGED TO .08, DIMENSION .197 CHANGED TO .20 BLACK OXIDE SPEC CHANGED, TEMPLATE UPDATED, 17-4PH SS MTL OPTION ADDED	17-803	17.12.27	VM	ML



RBE350A93-3312-03-7 WASHER



SECTION D-D



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 170959 ML5
1801-24

NOTES:

- 1) MATERIAL: AISI 4140/4142 (28-32 Rc) OR 17-4PH-H900 SS
- 2) HEAT TREAT: N/A
- 3) FINISH: 4140/4142 = BLACK OXIDE / 17-4PH = NONE
- 4) SPEC: 4140/4142 = MIL-C-13924, CLASS 1; MIL-C-16173 GRADE 4 / 17-4PH = N/A
- 5) BREAK ALL SHARP EDGES .015 x 45° OR .015R
- 6) IDENTIFICATION: N/A

DART AEROSPACE Newbury, Ontario, Canada	
WASHER	
PART NO.	REV
RBE350A93-3312-03-7	F
TOOL NO. RBE350A93-3312-03	
DESIGNED BY: VM 17/12/27	INITIALS AND DATE
DRAWN BY: VM 12/28/2017	TOLERANCES: .XXX ± .006
CHECKED BY: VM 01/02/2018	XX ± .01
INFO REVIEW BY: DD 01/02/2018	X ± .1
APPROVED BY: ML 01/08/2018	SCALE: NTS
SHEET 6 OF 8	
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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER :							



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO039039

Supplier: GRO002-VC
Group Altech
2455 Halpern
St Laurent
QC
H4S 1N9 Canada
Phone: 514-335-3666
Fax: 514-335-3868

PO No: PO039039
PO Date: 2/14/18
Due Date: 2/27/18
Purchase Order
Revision:
Revision Date:
Ship-To Contact: Phone:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pymt Terms: Net 30
Freight Terms:
Special Comments:

Items										
Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	170480	646.3911	Shim Issue P/O: _____ Cad Plating, CAD PLATE PER QQ-P-416, TYPE II, CLASS 2, CL2	Firmed	2/27/18	32 pcs	0 pcs	32 pcs	\$4.25/pcs	\$136.00
2	170958	RBE350A93-3312-03-5	Seat -Issue P/O to Groupe Altech; PO _____ -Black oxide finish, MIL-C-13964, CLASS 1; MIL-C-16173 GRADE 4 -Certificate of Conformity is required	Firmed	2/27/18	6 pcs	0 pcs	6 pcs	\$1.35/pcs	\$8.10
3	170959	RBE350A93-3312-03-7	Washer -Issue P/O to Groupe Altech; PO _____ -Black oxide finish, MIL-C-13964, CLASS 1; MIL-C-16173 GRADE 4 -Certificate of Conformity is required	Firmed	2/27/18	6 pcs	0 pcs	6 pcs	\$1.35/pcs	\$8.10
4	170952	RBE350A94-2704-00-1	Plate -Issue P/O to Groupe Altech; PO _____ -Black oxide finish, MIL-C-13924C Class 1 -Certificate of Conformity is required	Firmed	2/27/18	20 pcs	0 pcs	20 pcs	\$3.89/pcs	\$77.80
5	170957	RBE350A93-3312-03-3	Remover / Installer -Issue P/O to Groupe Altech; PO _____ -Black oxide finish, MIL-C-13964, CLASS 1; MIL-C-16173 GRADE 4 -Certificate of Conformity is required	Firmed	2/27/18	6 pcs	0 pcs	6 pcs	\$1.35/pcs	\$8.10

DAS
38
9-89



Certificat de Conformité / Certificate of Compliance

(006931-1)

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupaltech.com

Bon de Livraison / Packing Slip

006931 - 1

Livré à / Ship to

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courier / Acc. No.	Bon de commande Client Customer Purchase Order No.				
27-Feb-2018		Aman Kaur		PO039039				
#Ligne Line#	No. de Série / # Pièce Part Number / Line Item Details	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	À venir/ Back Order
1	646.3911 Rev.	646.3911 CAD PLATE PER QQ-P-416 TYPE 2 CLASS 2 ,CL2	CADMIUM CH	32	32	0	0	0
2	RBE350A93-3312-03-5 Rev.	RBE350A93-3312-03-5 01 -OXIDE BLACK [OXIDE BLACK]	BLACK-OXIDE CH	6	6	0	0	0
3	RBE350A93-3312-03-7 Rev.	RBE350A93-3312-03-7 01 -OXIDE BLACK [OXIDE BLACK]	BLACK-OXIDE CH	6	6	0	0	0
4	RBE350A94-2704-00-1 Rev.	RBE350A94-2704-00-1 01 -OXIDE BLACK [OXIDE BLACK]	BLACK-OXIDE CH	20	20	0	0	0
5	RBE350A93-3312-03-3 Rev.	RBE350A93-3312-03-3 01 -OXIDE BLACK [OXIDE BLACK]	OXIDE-BLACK CH	6	6	0	0	0
6	RBT400325 Rev.	RBT400325 01 -OXIDE BLACK [OXIDE BLACK]	OXIDE-BLACK CH	6	6	0	0	0
7	RBE8814164002 Rev.	RBE8814164002 01 -OXIDE BLACK [OXIDE BLACK]	OXIDE-BLACK CH	1	1	0	0	0
8	RBE350A93-3307-00-01 Rev.	RBE350A93-3307-00-01 01 -OXIDE BLACK [OXIDE BLACK]	OXIDE-BLACK CH	6	6	0	0	0

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Notes Additionnelles / Additional Notes

Epaisseur réelle
Actual Thickness

Inspecteur Qualité
Quality Inspector

Réçu par
Received By

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
 Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.
 Our financial and legal responsibility will not be higher than the amount of invoice.